

WHAT IS CLAIMED IS:

1. A catalytic dewaxing process which comprises reacting a paraffin containing feed stock over a catalyst comprising a molecular sieve with
5 a one dimensional pore structure having an average diameter of 0.50 to 0.65 nm, and a metal dehydrogenation component, at dewaxing reaction conditions and in the substantial absence of added hydrogen.
2. The process of claim 1 wherein the catalyst deactivation rate, as
10 measured by temperature increase required to meet a predetermined pour or cloud point (TIR) is less than 25°F/year (14°C/year).
3. The process of claim 1 wherein the hydrogen partial pressure is less than about 100 psig (791 kPa).
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4. The process of claim 3 wherein the hydrogen partial pressure is less than about 70 psig (584 kPa).
5. The process of claim 4 wherein the paraffin containing feed
20 stock contains greater than 80 wt% n-paraffins and boils in the range above 430°F (221.1°C).
6. The process of claim 5 wherein the dehydrogenation component is platinum or palladium.
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7. The process of claim 6 wherein the process comprises a cyclic catalytic dewaxing-catalyst regeneration process wherein catalyst is provided in a first reaction zone and a second reaction zone, the paraffin containing feed stock is dewaxed in the first reaction zone for a pre-determined period after

which the paraffin containing feed is transferred to the second zone for dewaxing at reaction conditions, and catalyst in the first zone is regenerated.

8. The process of claim 7 wherein dewaxing occurs in the second
5 zone for a pre-determined period after which the paraffin containing feed is transferred to the first reaction zone wherein dewaxing occurs over the regenerated catalyst, and the catalyst in the second zone is regenerated.

9. The process of claim 8 wherein catalyst regeneration is effected
10 by hydrogen stripping or oxygen treatment.

10. The process of claim 5 wherein the product of the catalytic dewaxing process is a lube base stock or a diesel range material.

11. The process of claim 10 wherein the product is subjected to
15 hydrofinishing.

12. The process of claim 11 wherein the molecular sieve is selected from the group consisting of ZSM-23, ZSM-35, ZSM-48, ZSM-22,
20 SSZ-32, zeolite beta, mordenite, rare earth ion exchanged ferrierite and mixtures thereof.

13. The process of claim 12 wherein the molecular sieve is ZSM-48.

25 14. Use of the process according to claim 13 to (1) decrease the pour point or cloud point, or both, and (2) preserve the viscosity of a paraffin containing feed stock.